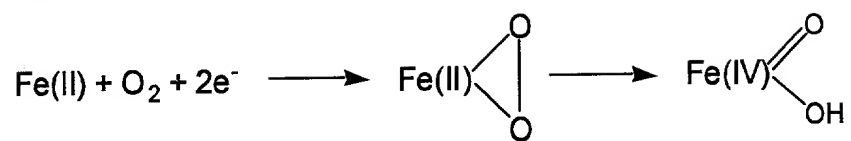
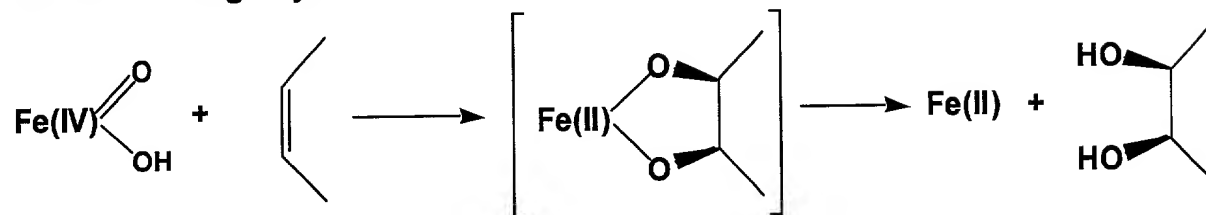


FIGURE 1

**Activation of O<sub>2</sub>**



**Reaction Through Cyclic Ester Intermediate**



**FIGURE 2**

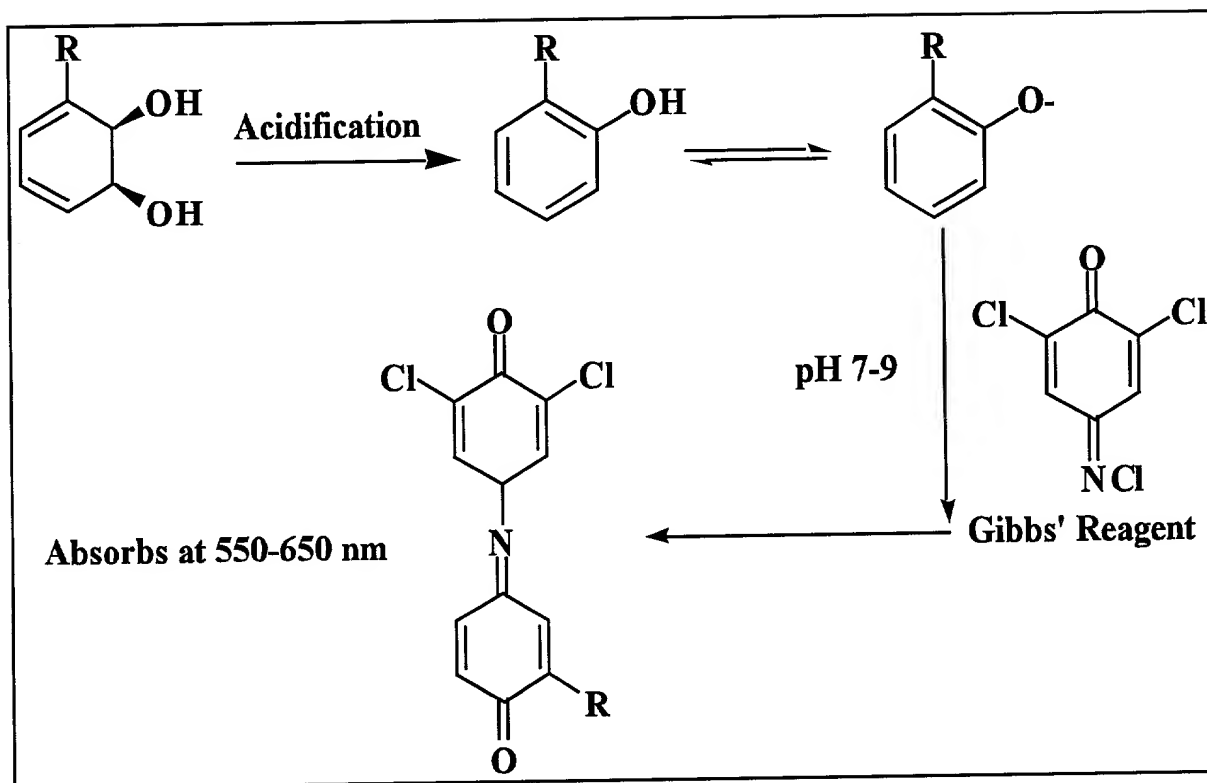


FIGURE 3

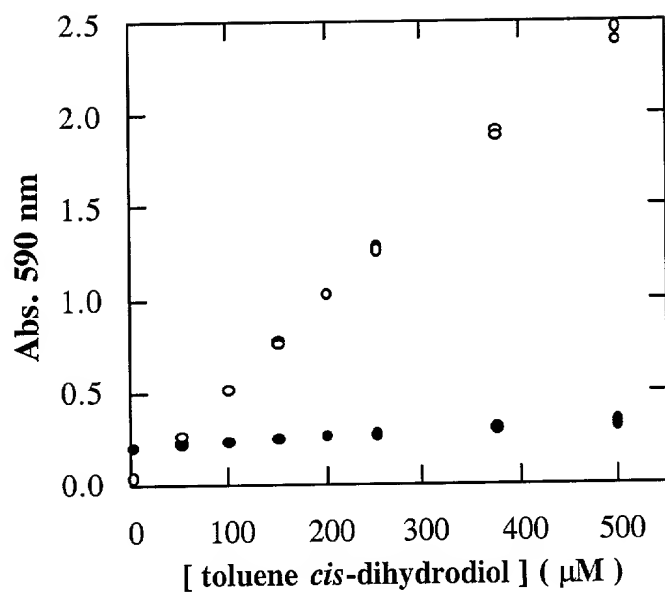


FIGURE 4

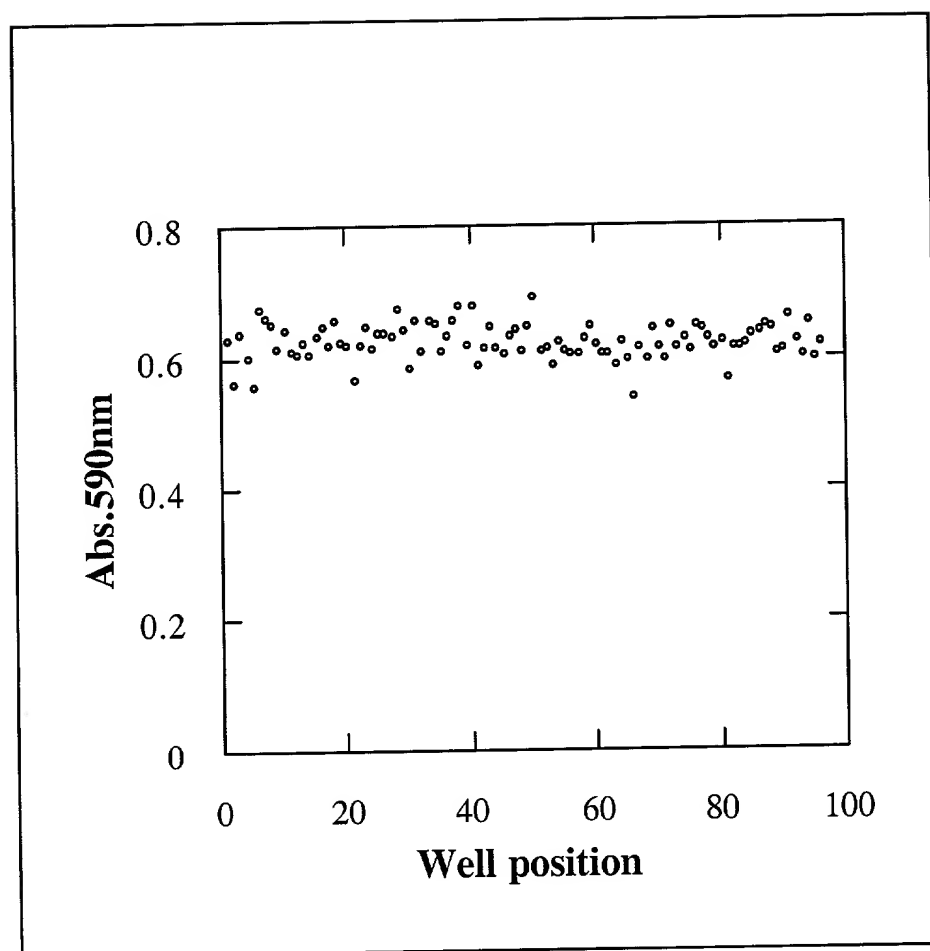


FIGURE 5

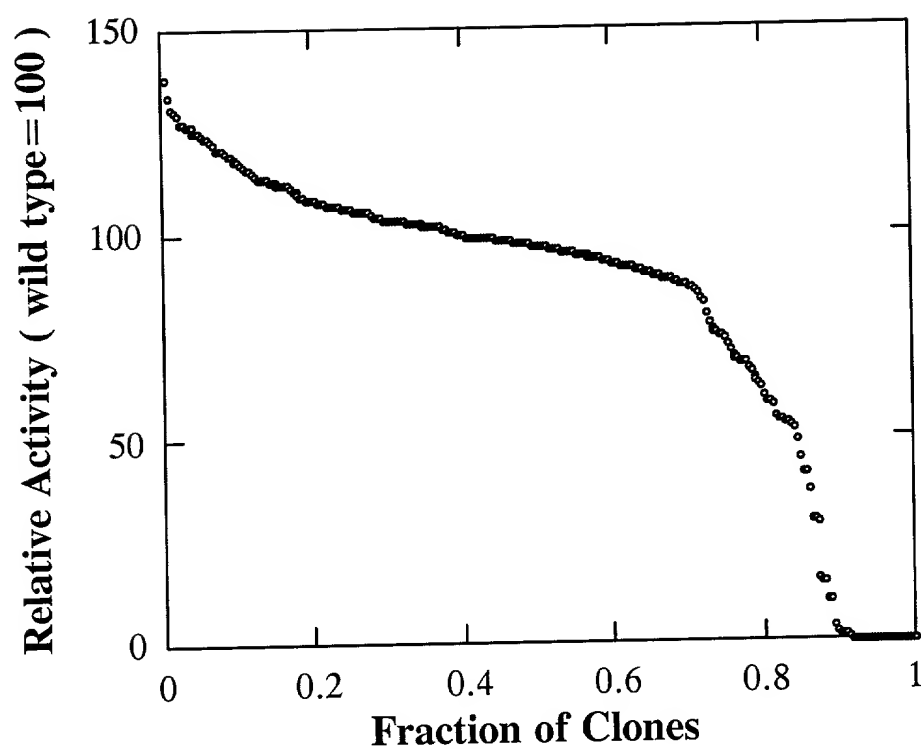


FIGURE 6

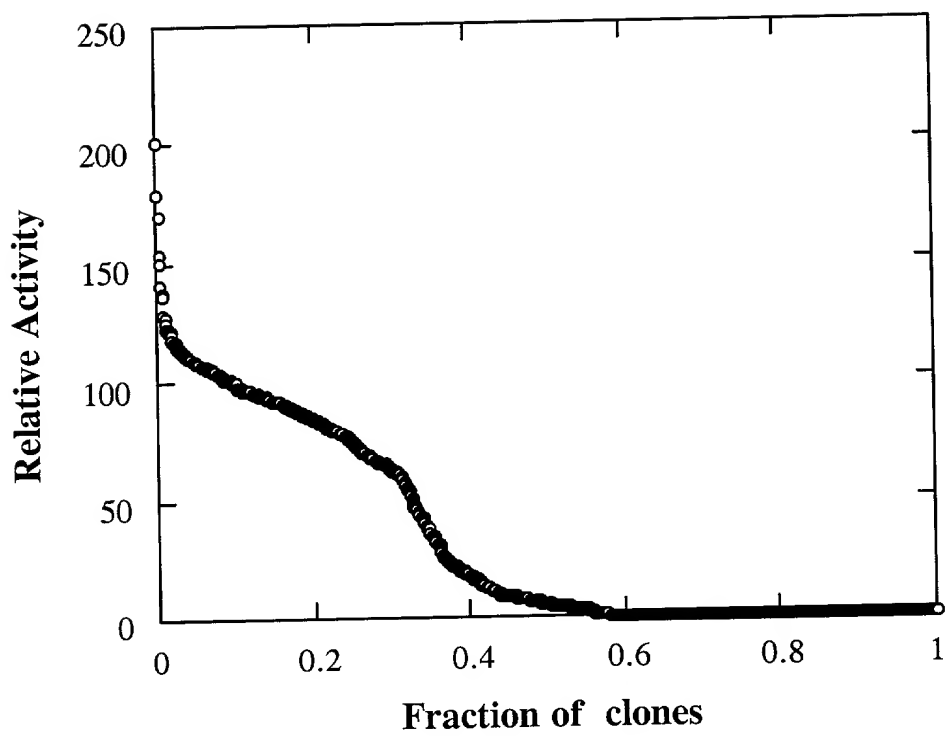
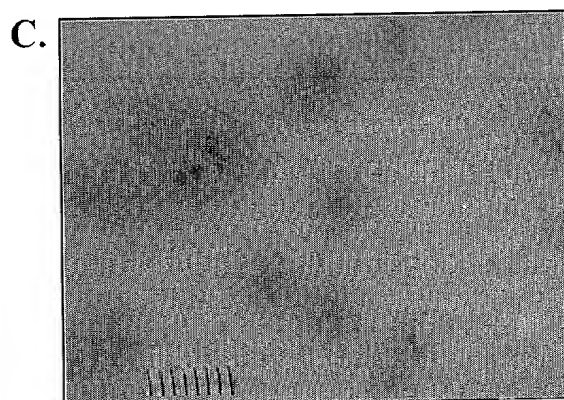
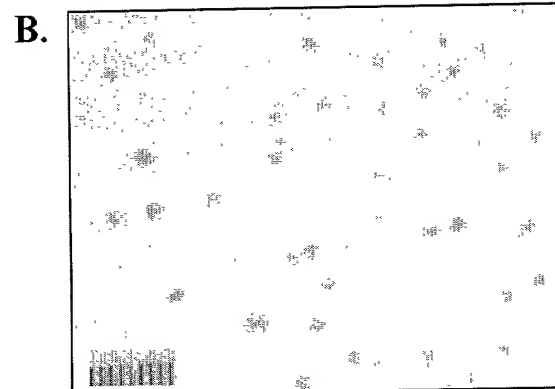
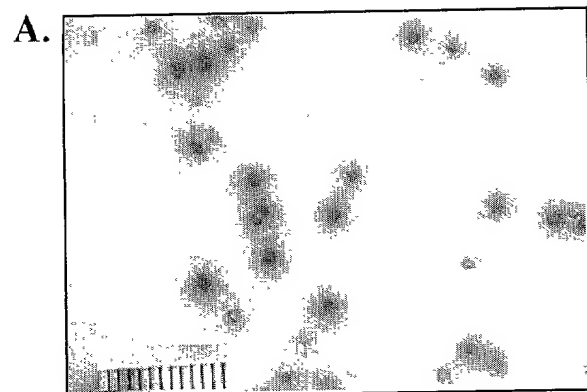
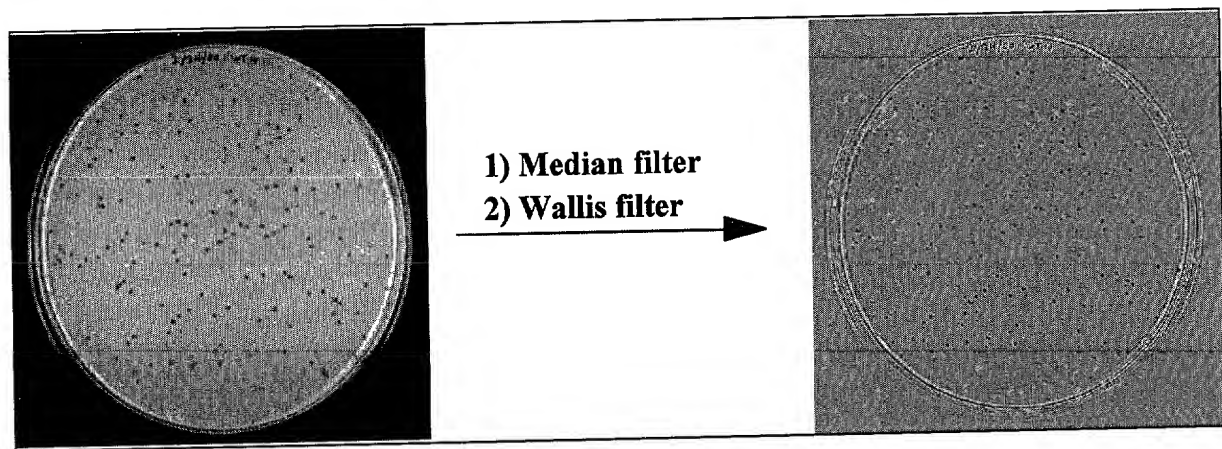


FIGURE 7

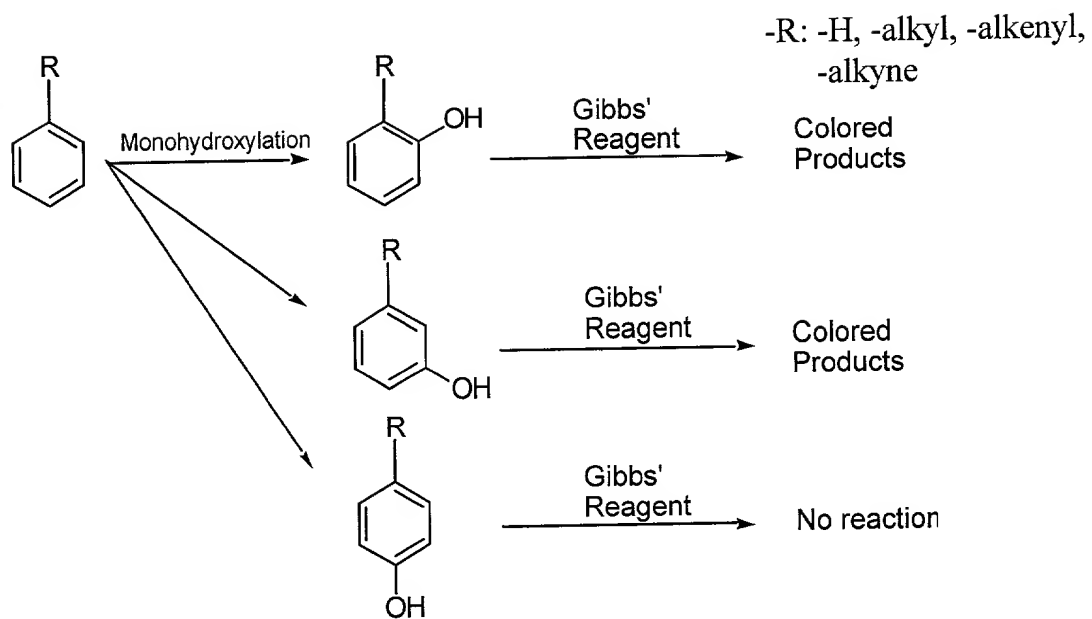


**FIGURE 8**



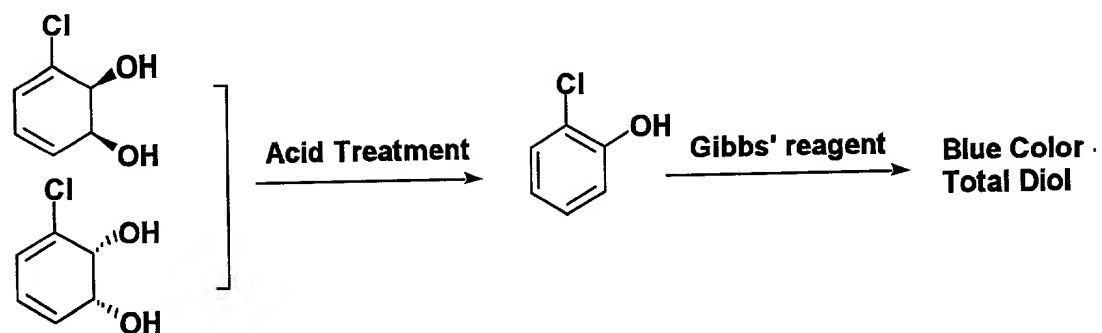


**FIGURE 9**



**FIGURE 10**

### Pathway I



### Pathway II

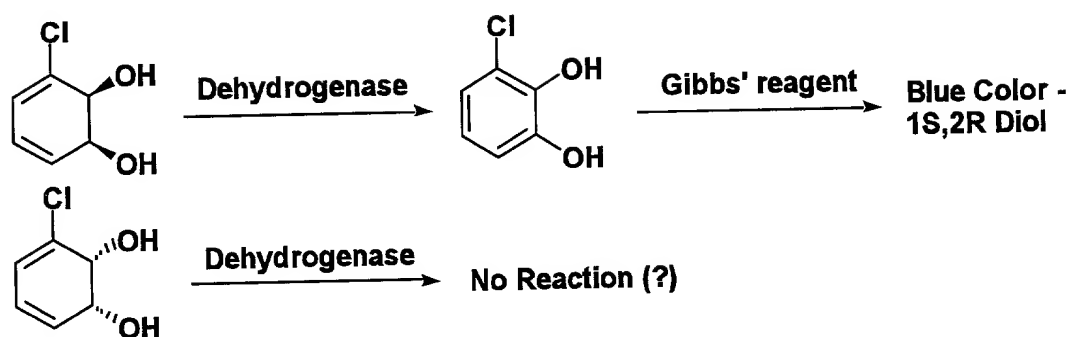
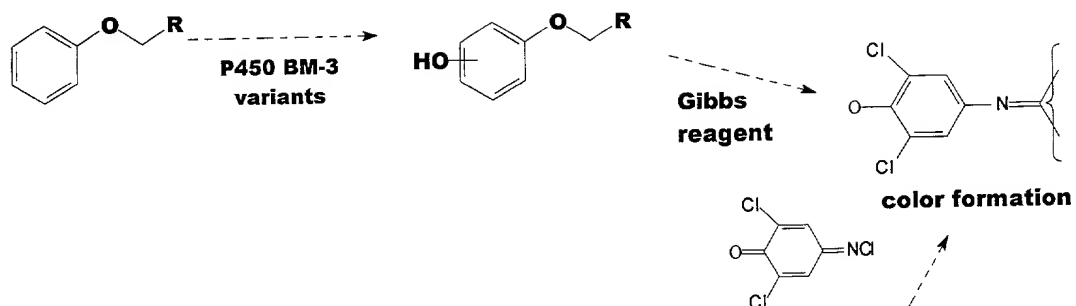


FIGURE 11

# Reaction principle

I.



II.

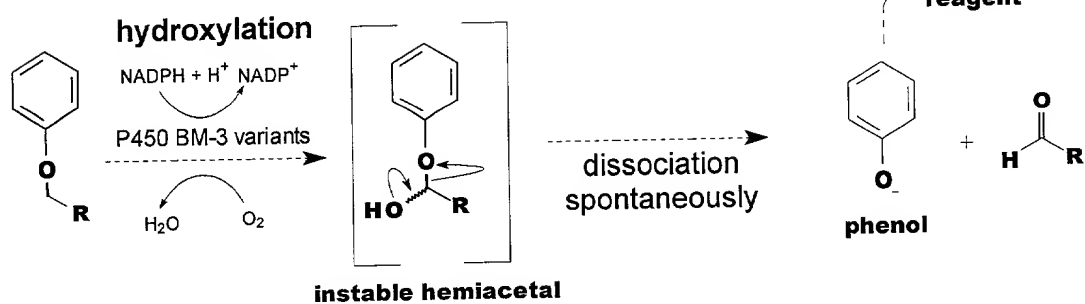
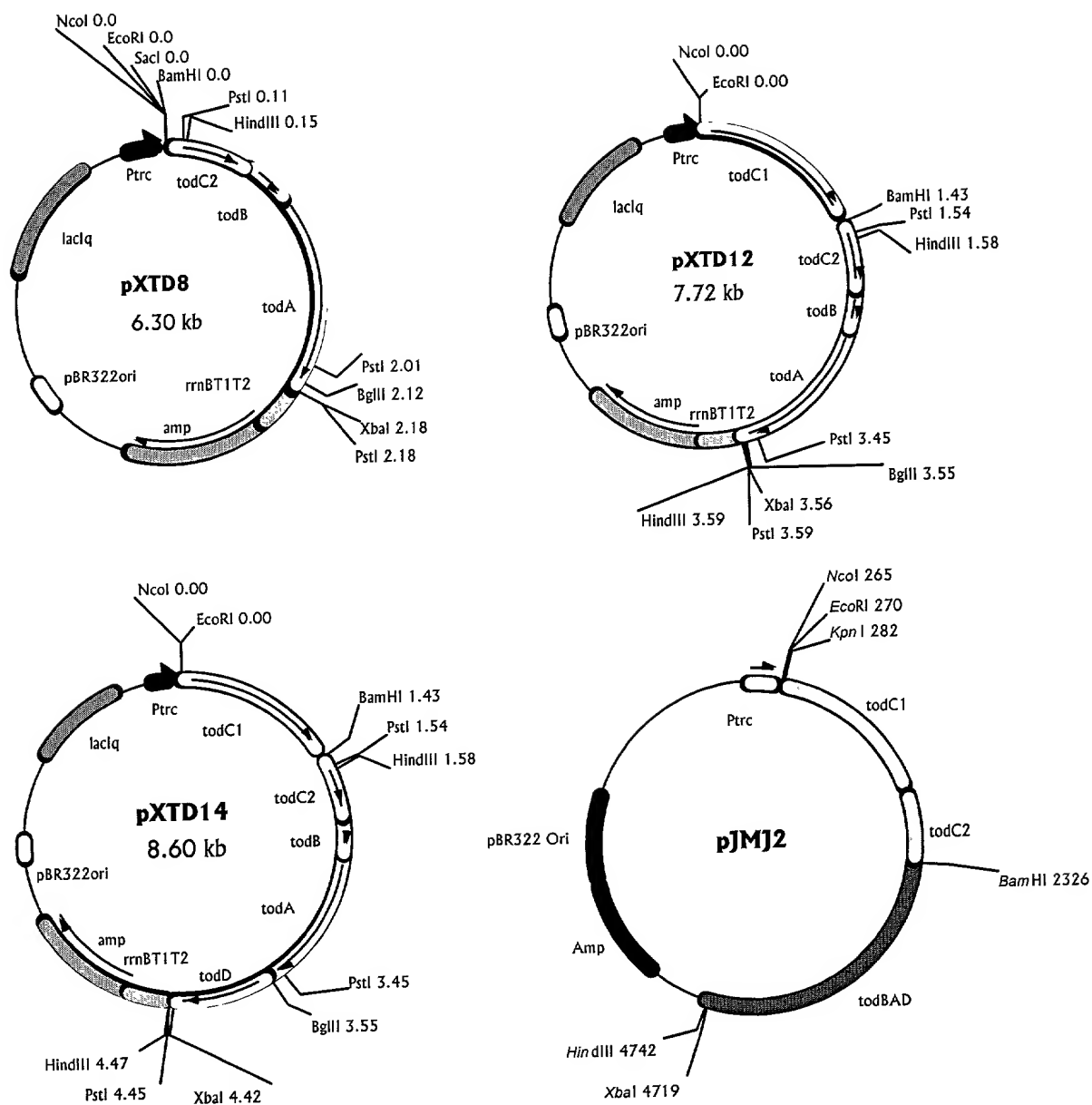


FIGURE 12



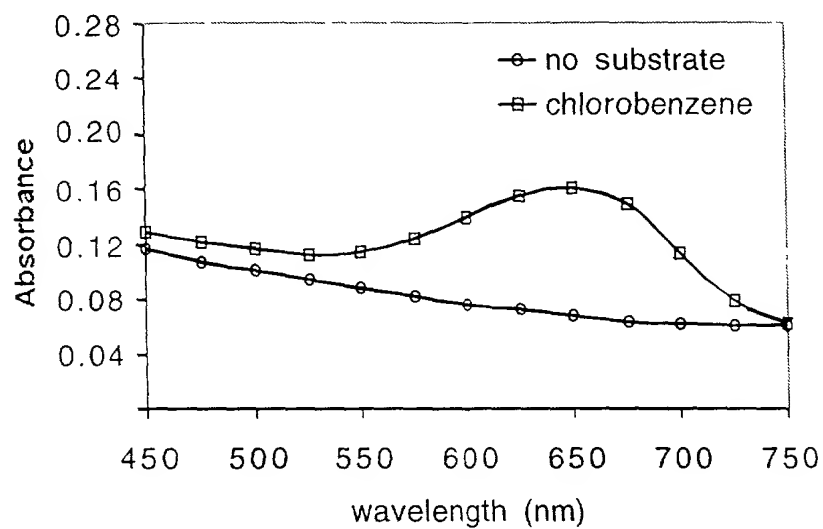
**FIGURE 13**

No.	Name	Age	Sex	Height (cm)	Weight (kg)	BMI (kg/m <sup>2</sup> )	Waist (cm)	Hip (cm)	Waist:Hip	Neck (cm)	Triceps (cm)	Biceps (cm)	Forearm (cm)	Calf (cm)	Ankle (cm)	Shank (cm)	Heel (cm)	Ball (cm)	Toe (cm)	Foot (cm)	Foot Volume (L)	Foot Area (cm <sup>2</sup> )	Foot Perimeter (cm)	Foot Shape	Foot Type	Foot Color	Foot Temperature (°C)	Foot Moisture (g)	Foot Odor (g)	Foot pH	Foot Weight (g)	Foot Density (g/cm <sup>3</sup> )	Foot Elasticity (N)	Foot Strength (N)	Foot Flexibility (°)	Foot Endurance (min)	Foot Fatigue (min)	Foot Recovery (min)	Foot Health (min)	Foot Disease (min)	Foot Injury (min)	Foot Trauma (min)	Foot Fracture (min)	Foot Dislocation (min)	Foot Amputation (min)	Foot Transplantation (min)	Foot Regeneration (min)	Foot Healing (min)	Foot Grafting (min)	Foot Reconstruction (min)	Foot Prosthesis (min)	Foot Implant (min)	Foot Surgery (min)	Foot Anesthesia (min)	Foot Pain (min)	Foot Itch (min)	Foot Rash (min)	Foot Eczema (min)	Foot Psoriasis (min)	Foot Dermatitis (min)	Foot Allergy (min)	Foot Infection (min)	Foot Fungus (min)	Foot Bacteria (min)	Foot Virus (min)	Foot Parasite (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min)	Foot Spider (min)	Foot Snake (min)	Foot Scorpion (min)	Foot Insect (min)	Foot Mite (min)	Foot Flea (min)	Foot Tick (min
-----	------	-----	-----	-------------	-------------	--------------------------	------------	----------	-----------	-----------	--------------	-------------	--------------	-----------	------------	------------	-----------	-----------	----------	-----------	-----------------	------------------------------	---------------------	------------	-----------	------------	-----------------------	-------------------	---------------	---------	-----------------	-----------------------------------	---------------------	-------------------	----------------------	----------------------	--------------------	---------------------	-------------------	--------------------	-------------------	-------------------	---------------------	------------------------	-----------------------	----------------------------	-------------------------	--------------------	---------------------	---------------------------	-----------------------	--------------------	--------------------	-----------------------	-----------------	-----------------	-----------------	-------------------	----------------------	-----------------------	--------------------	----------------------	-------------------	---------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	-----------------	-------------------	------------------	---------------------	-------------------	-----------------	-----------------	----------------



# Validation of spectroscopic detection method

A.



B.

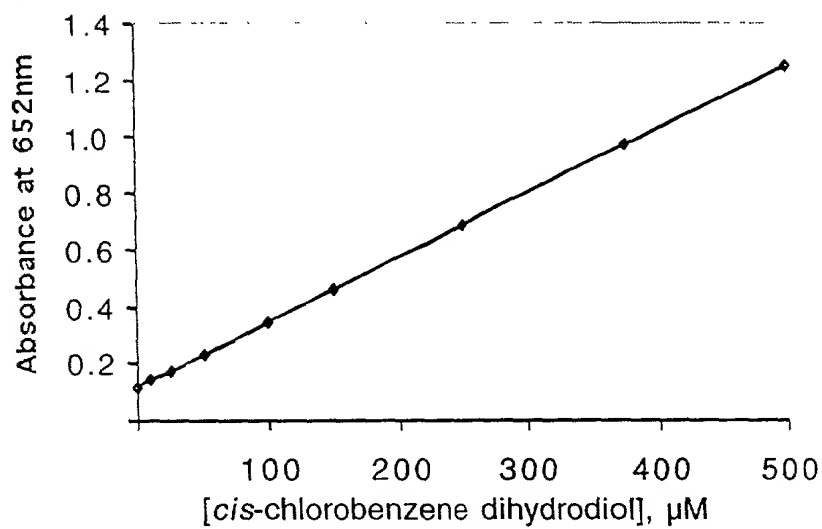
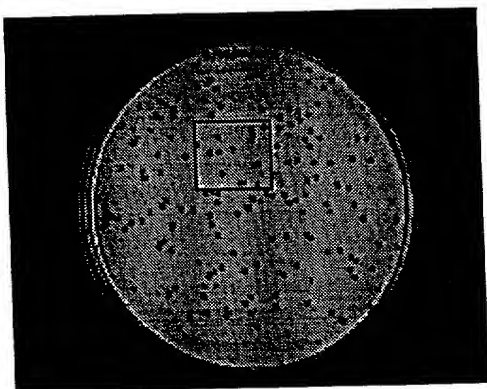


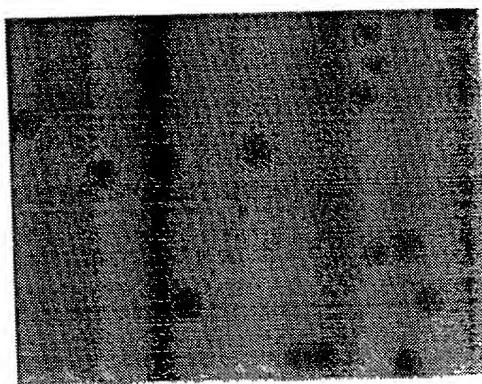
FIGURE 15

Image analysis

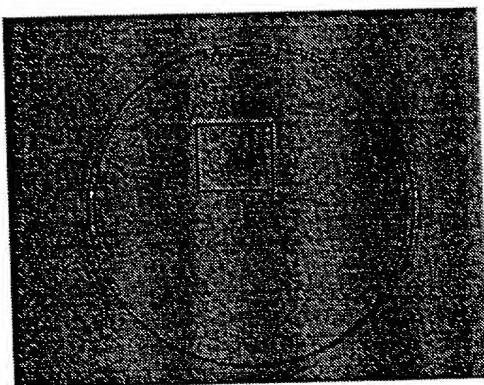
A.



B.



C.



D.

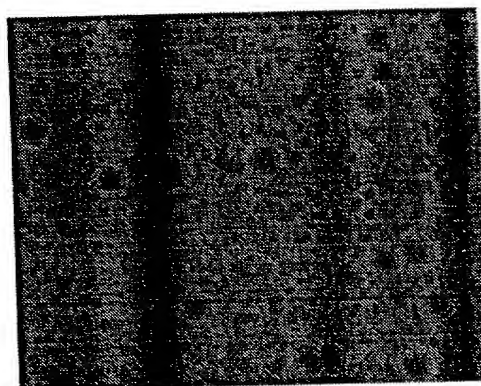
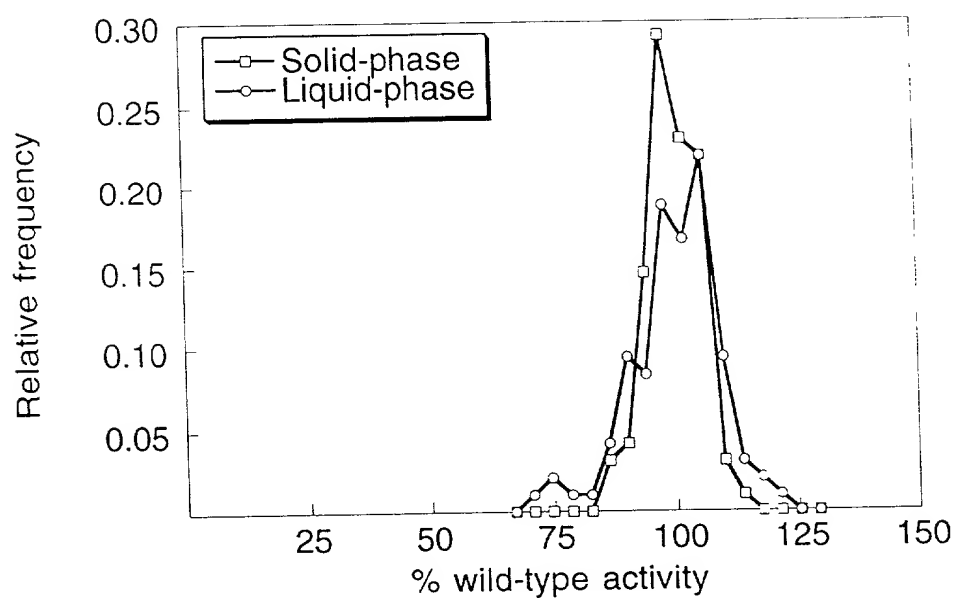


FIGURE 16



## Validation of screening methods

A.



B.

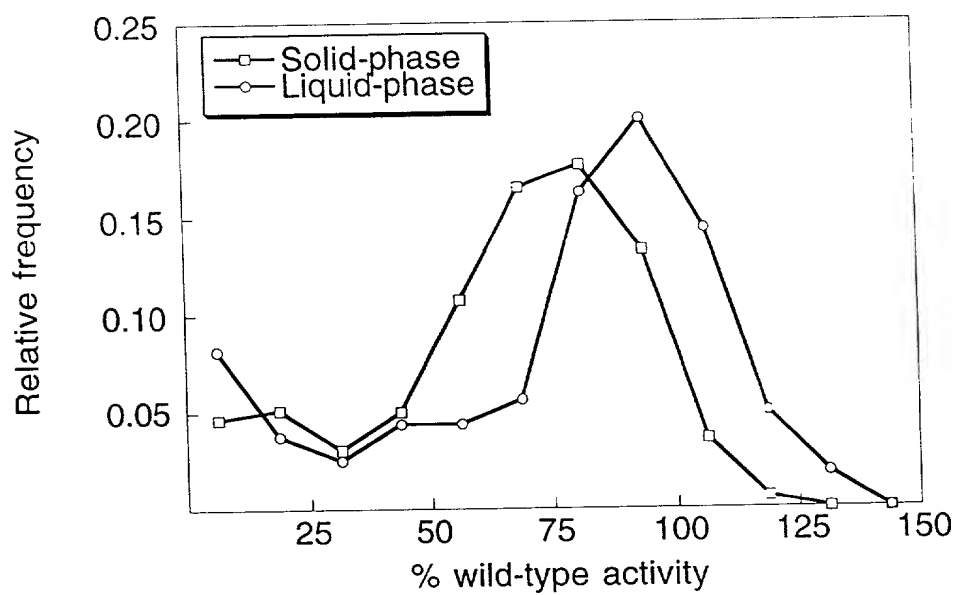


FIGURE 17